

## ABSTRACT OF THE DISCLOSURE

[0093] A method and apparatus for designing objects using functional object representation are described. In one embodiment, the method includes receiving behavioral parameters associated with each design feature of an object from a user and determining a correspondence between each design feature and one or more body partitions from a predefined set of body partitions that compose the body of the object. The determination is made based on the behavioral parameters received from the user. The method further includes assigning a contributing volume to each of the corresponding body partitions and computing the digital model of the object using contributing volumes of all design features of the object.